

TRANSPORTATION

PART 1: KEY FINDINGS

1. Transportation and Land Use Relationships

A local transportation system should serve the community and its component neighborhoods in their locations, and with the character and qualities, that the local citizens desire. In other words, the preferred land use plan drives---or should drive---the transportation plan, and not the other way around. There is, however, a reciprocal relationship between land use and transportation that should be recognized. This is of vital importance throughout the community planning process.

In a commercial area, trips are generated by the commercial activity (in addition to the through trips on the arterial street to get from one part of the community to the other). Daily trips on the adjacent street is a prime factor in the value of commercial real estate, and so trips generated by the commercial activity make the land more valuable for even more commercial activity. Increased commercial activity generates even more trips, which generates even more commercial activity. This phenomenon can be seen along commercial strips throughout the country. Arterial streets are most often “widened” for increased capacity to accommodate the traffic increases generated by the commercial activity along the arterial itself.

In residential areas, the reciprocal relationship operates in reverse. The more trips that take place on a residential street, generally, the less desirable it is to live there. When through traffic is allowed to “infiltrate” a residential neighborhood---usually due to poor transportation planning, poor land use practices, or both---the result is often disinvestment and the ultimate decline of a once viable neighborhood. As the neighborhood declines and residents retreat to interior living spaces and backyards, surrendering their street and front yards to the traffic and noise, the street can become even more desirable for through traffic as speeds increase and side friction is reduced. Further disinvestment in the neighborhood usually follows.

Functional street classifications and road design standards take these factors into account. In addition to traffic volumes and access concerns, transportation planning should consider the effect on neighborhoods and incorporate character sensitive standards.

2. Economic Development

Economic development strategies are often closely linked to the availability of key transportation facilities. In Anaconda-Deer Lodge County, the proximity to the interstate and Port of Montana are important assets that can be used to attract industry. Rail access at the Mill Creek and East Yards industrial areas are key to redevelopment strategies for these sites. Increased use of the airport can have significant positive economic impact for the county.

3. Transportation planning for all segments of the population

Transportation planning should accommodate all segments of the population. The county has a number of agencies that provide para-transit services for seniors, the disabled, and other special populations. As the population gets older, the demand for such services will increase. In addition to para-transit services, roadway and sidewalk design should also account for special needs populations. Upgrading sidewalks to meet the Americans with Disabilities Act (ADA) is needed throughout Anaconda. Designing streets for walkability and safe routes to schools, will promote fitness goals by encouraging more citizens to walk and bike to work, school, shopping, and other destinations.

4. Trails as part of the transportation system.

Pedestrian/bike trails are an integral part of the transportation system. The county is in the process of completing a Master Trails Plan to provide connectivity between communities and provide a safe/alternative mode of travel. The benefits of a well developed trail system include promoting healthy lifestyles and offering an alternative travel mode in order to reduce congestion. If designed properly, a trail system can also offer environmental benefits from greenways as well as attracting visitors and increasing tourism.

PART 2: EXISTING CONDITIONS

1. Road System

A. Overview

There is a total of 522.6 miles of roads with public access in Anaconda-Deer Lodge County (ADLC). This total includes state maintained roads, county roads, roads on public lands, and privately maintained roads in subdivisions. The State of Montana maintains 94.9 miles of roads in the county and all of these roads are paved. Most of the remaining 32 miles of paved roads are maintained by the county and are located in and around the Anaconda urban area, Opportunity, and West Valley. Unpaved gravel roads are primarily located in rural areas of the county, on United States Forest Service lands, and on other state and Federal lands.

B. Functional Street Classification

Functional street classification is an important planning tool for determining street design, funding, and system development. The functional classification is defined by characteristics such as level of access, and type of travel mobility. Urban and rural areas have different characteristics in regards to density, types of land use, travel patterns, and highway function. Federal regulations recognize these different features through separate urban and rural functional classifications. For planning and funding purposes, the Montana Department of Transportation (MDT) has classified roads in the Anaconda urban area. (see Map 1). The MDT definitions for each classification are described below:

- **Arterials** – Arterials provide the highest level of mobility, at the highest speed, for long uninterrupted travel. The Interstate Highway System is an arterial network. Arterials generally have higher design standards than other roads and many principal arterials have multiple lanes with some degree of access control. Arterials are broken into principal and minor routes. The rural arterial network provides interstate and intercounty service so that all developed areas are within a reasonable distance of an arterial highway.

The urban principal arterial system serves major metropolitan centers, corridors with the highest traffic volume, and those with the longest trip lengths. It carries most trips entering and leaving urban areas, and it provides continuity for all rural arterials that intercept urban boundaries.

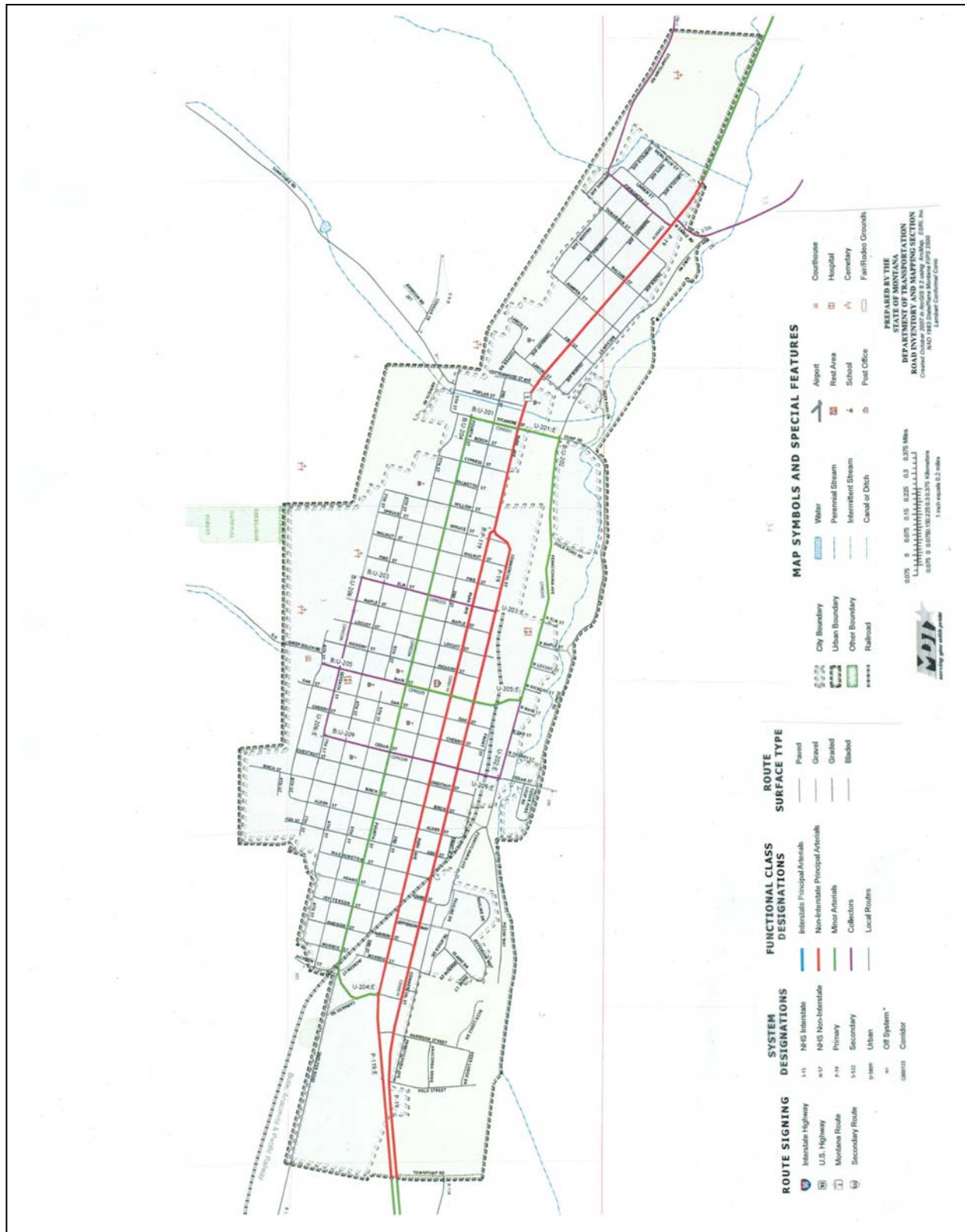
- **Collectors** – Collectors provide a lower degree of mobility than arterials. They are designed for travel at lower speeds and for shorter distances. Collectors are typically two-lane roads that collect and distribute traffic from the arterial system. The rural collector system is stratified into two subclasses: major and minor collectors.

In urban areas, the collector system provides traffic circulation within residential neighborhoods and commercial and industrial areas. Unlike arterials, collector roads may penetrate residential communities, distributing traffic from the arterials to the ultimate destination for many motorists. Urban collectors also channel traffic from local roads and streets onto the arterial system.

- **Local** – Local roads represent the largest element in the American public road network in terms of mileage. Local roads provide basic access between residential and commercial properties, connecting with higher order roadways.

Source: Montana Department of Transportation, "A Guide to Functional Highway Classification Systems and Other Route Designations in Montana"

Map 1: Anaconda Urban Area – Street Functional Classification Map



Source: Montana Department of Transportation

2. Traffic Volumes

The following table contains Average Daily Traffic (ADT) counts for various road segments in Anaconda – Deer Lodge County. Due to high gasoline prices, ADTs for the year 2008 were lower than usual. Traffic volumes decreased by as much as 25% on some rural segments from 2007 to 2008. There was less fluctuation in traffic on the urban segments. Since 2008 was an atypical year, the table contains data from the year 2007.

US Highway 1 carries the heaviest volume of traffic in the county. The segment between Warm Springs Road and the Anaconda urban limits carries the heaviest traffic. MT Highway 48 between Warm Springs and Anaconda is the second most traveled highway in the county. Although MT Highway 569 (Mill Creek Road) has low traffic volumes, there should be some increase in vehicle trips resulting from industrial development in the Mill Creek redevelopment area.

Table 1 : Average Daily Traffic (ADT) for Selected Road Segments in ADLC - 2007

Road Segment	ADT
US Hwy 1 (From 1-90 to MT Hwy 441)	4210
US Hwy 1 (From MT Hwy 441 to Mill Creek Rd.)	5730
US Hwy 1 (From Mill Creek Rd to Warm Springs Rd.)	6170
US Hwy 1 (From Warm Springs Rd to Anaconda Urban Limits)	7130
US Hwy 1 – Commercial Ave. (From East Urban Limits to Cedar St.)	5467
US Hwy 1 – Commercial Ave. (From Cedar St. to Main St.)	3970
US Hwy 1 – Commercial Ave. (Main ST. to end of one-way)	3560
US Hwy 1 (From end of one-way to west Anaconda)	6207
US Hwy 1 (From west Anaconda to Granite County line)	929
Park Ave. (From Adams St. to Pine St.)	4200 - 5800
MT Hwy 569 (From Mill Creek Rd.)	207
MT Hwy 48 (From Warm Springs Rd.)	1479
MT Hwy 273	496
MT Hwy 441	505

Source: Montana Department of Transportation, 2007

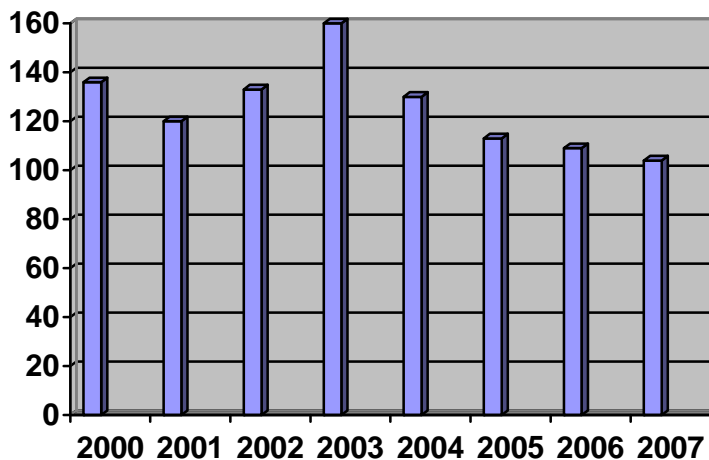
Note: Park St. Data is from 2008 represents range at various intersections in this segment.

3. Safety

A. Crash Statistics

The number of crashes in Anaconda Deer Lodge County has trended downward since the year 2000. In 2000 there were 136 crashes as opposed to 104 in 2007. Statewide, the number of crashes in this same time period remained steady. Both locally and statewide, the percentage of crashes involving alcohol has declined dramatically. In ADLC, approximately 30% of crashes in the 1980s involved alcohol compared to a range of 10% to 14% crashes that involved alcohol in this decade.

Figure 1 : # of Crashes in ADLC



Source: Montana Department of Transportation,
<http://www.mdt.mt.gov/publications/datastats.shtml>

B. Safe Routes to Schools

The Montana Safe Routes to Schools (STRS) program is administered by the Montana Department of Transportation (MDT). The goal of STRS is to increase the number of students that walk or bicycle to school along safe routes. This goal promotes good health, reduces traffic congestion at schools and increases traffic awareness among young children. Impediments to walking include traffic conditions such as unsafe street crossings, speeding traffic, congestion around schools and possibility of crimes against children. MDT works with communities to develop STRS programs that address specific concerns within a community. STRS plans address physical infrastructure needs such as sidewalks and roadway crossing and also addresses concerns about safety and health. Education, traffic enforcement and physical improvements to the pedestrian system are all aspects of STRS plans. MDT receives federal funding to implement STRS programs and is working with local communities to develop these plans.

(Source: Montana Department of Transportation, "Safe Routes to School Guidebook", June 2007)

4. Road Design Standards

Public street standards are set forth by County Resolution #06-58 and are implemented mainly through the Subdivision Regulations. Generally, collector and local streets require a right-of-way (R/W) width of 60 feet. Driving surface width varies from 24' to 28', depending on the functional classification. Most new developments are in rural areas of the county and sidewalks are not required. The governing body has the discretion to require paving of roads upon review of the subdivision. Streets and roads must be designed to have proper drainage with curbs and gutter or swales to ensure proper drainage.

The urban area of Anaconda has a unique character that should be preserved as streets are reconstructed or where there are areas of infill development. Few factors can change the character and livability of a neighborhood more dramatically than streets, especially when they carry an excessive number of trips and/or allow excessive speeds. Wide residential streets designed to allow parking on both sides, and to allow two vehicles to pass safely, also can encourage excessive speed. Some communities have developed alternative character sensitive street standards. Street trees, street fixtures, and sidewalks are important components of the streetscape to be considered.

A complete street is a concept intended to promote street designs that accommodate pedestrians, bicycles, and transit in addition to automobile traffic. Neo-traditional designs emphasize grid street patterns, narrower pavement widths, and reduced rights-of-way. Such alternative standards must take into account projected volumes, connectivity, existing right-of-way, housing densities, and topography. A traffic impact analysis for a proposed development should be a factor in assessing the appropriateness of an alternative street standard.

Figure 2: Residential Street in Anaconda



5. Road System Condition

A. Pavement Management System

The Anaconda Deer Lodge County (ADLC) Road Department has conducted a pavement inventory of roads and streets within the Anaconda municipal area. The inventory allows for the planning and scheduling of street improvements such as overlays, and where necessary, reconstruction. Financial capability, however, is a limiting factor in proceeding with extensive street and sidewalk improvements. In general, the 2002 Capital Improvement Plan (CIP) made the following conclusions regarding road conditions.

- Asphalt pavements are generally in good shape. Chip and seal appears to be an appropriate remedy to prolong pavement life in many instances.
- Storm drains, including new/additional inlets and curbing, are a critical need. Sub-standard drainage facilities are a particularly crucial need in residential areas on the west side of Anaconda.
- Sidewalk replacements are needed throughout many portions of the community. New sidewalks are needed at the east end of the municipal area, especially on Park, Commercial, and major east-west routes east of Albertson's where none currently exist.
- Wheelchair ramps for Americans with Disabilities Act (ADA) compliance need to be installed with all sidewalk replacements and additions.

B. Bridges

The Montana Department of Transportation (MDT) maintains an inventory of bridges including data on condition. There are nine bridges in the county that are eligible for rehabilitation or replacement. The health index ranks bridges from 1 to 100. A lower score indicates that the condition of the bridge is poor.

Table 2 : List of Bridges that are Classified as Structurally Deficient

Location	Water Crossing	Health Index	Structure Sufficiency Status	Year Built
5M S Warm Springs	SEP I-90	99.8	Functionally Obsolete	1964
4M S Opportunity	Silverbow Creek	57.3	Structurally Deficient	1928
4M NW Anaconda	Warm Springs Creek	97.6	Functionally Obsolete	1970
1M W Opportunity	Mill Creek	53	Structurally Deficient	1920
1M E Warm Springs	Clark Fork	64.4	Structurally Deficient	1925
2M N Warm Springs	Clark Fork	52.7	Structurally Deficient	1920
Warm Springs	Warm Springs Creek	63.9	Structurally Deficient	1912
1M W Anaconda	Warm Springs Creek	28.8	Functionally Obsolete	1949
Sycamore	Warm Springs Creek	61.3	Structurally Deficient	1960

Source: Montana Department of Transportation, 2009

6. Trails

Expansive and well designed trail systems provide an alternative, safe mode of transportation, and a convenient way for residents to exercise. Trails are often incorporated as part of greenways or linear parks that provide environmental benefits such as connecting wildlife corridors, filtering storm water run-off, and providing buffers that minimizes conflicts between different land uses. Well designed and maintained trail systems can be community assets that promote tourism and contribute to the visitor experience.

Anaconda Deer-Lodge County has an existing trail system consisting of paved trails in the Anaconda urban area, mountain bike trails on the public lands surrounding the town, and gravel trails in the Warm Springs Pond area. (See Map) Additionally, there is a proposed "Greenway Trail" system between Anaconda and Butte, as well as a proposed trail connecting Anaconda to West Valley.

In 2009, the County contracted with WWC Engineering to begin a trails planning process to connect these various systems and expand the trail network to serve other areas of the County. ALDC anticipates adopting a trails master plan in 2010.

The primary goals of the trail master plan include:

- 1) Design and construction of a new trailhead park at the existing Beaver Dam School site in Opportunity.
- 2) Design and construction of a multi-use trail system that will connect the communities of Anaconda, Opportunity, and Fairmont.
- 3) Provide a connection for the new trailhead park and interconnecting multi-use trail system to the proposed Greenway Trail System.
- 4) Provide for maintenance of the existing and proposed park and trail system components.

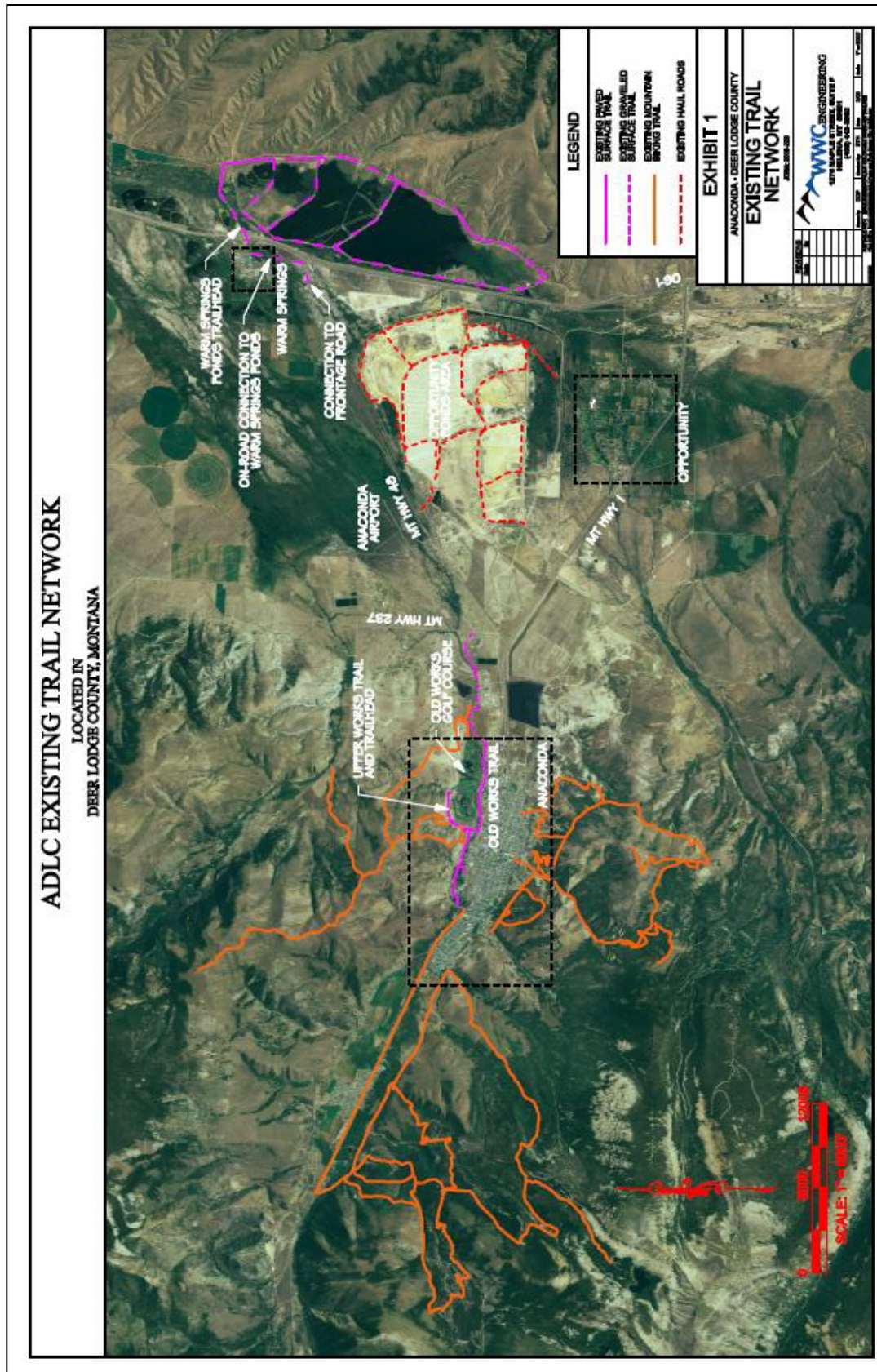
In addition to these goals, the Trail Master Plan recognizes that trail development must be coordinated with remediation and redevelopment efforts involving the Superfund clean-up. In order to serve various user groups, the trail system will be a combination of paved trails, gravel trails, on-street bike lanes, mountain bike trails, and equestrian trails. It will be equally important to provide a trail system that can meet the diverse needs of the population including those with disabilities and seniors. Developers of new subdivisions will be able to refer to the trail master plan for opportunities to connect developments to the trail system.

Implementation of the plan will require the involvement of community groups and coordination among a number of government agencies.

Figure 3 : Trail in Washoe Park



Map 2: Existing Trail System



7. Transit

A. Transit & Para-Transit

There is no fixed route transit service in the county. Para-transit is a term used to describe an alternative mode of flexible passenger transportation that does not followed fixed routes or schedules. Typically vans or mini-buses provide transportation services on a demand basis or on scheduled days. Para-transit services are operated by public transit agencies, community groups or non-profit organizations. In ADLC these groups include the following:

- AWARE - Provides para-transit services to clients within the AWARE service system. This includes – but is not limited to – transportation to work, medical appointments, recreation, leisure, and community integration.
- Anaconda Job Corps - Provides transit service for its students. It operates a number of passenger vans to transport students to specific job sites.
- Anaconda – Deer Lodge County Head Start Program - Provides a home-to-school transportation services for its students. Buses are also used for field trips and special activities.
- Area V Agency on Aging - Operates a bus to provide transportation services for its clients. Monday through Friday, agency clients are transported from their homes to the Metcalf Center for meals, programs, and other activities. Twice each week the agency shuttles clients from the Center to the grocery store and then to clients' homes.
- Community Hospital of Anaconda – Provides a “Dial-a-Ride” service for medical appointments for seniors.
- Discovery Basin Ski Area - Operates a bus during the winter ski season. The bus makes scheduled trips between the ski area and Fairmont Hot Springs, with stops in Anaconda.

B. Inter-City Transit

Greyhound Bus operates an inter-city bus route with stops along I-90 through Montana. The closest service to Anaconda is in Butte. Rimrock Trail Lines offer bus service from Billings to Whitefish and it also has a stops in Butte.

8. Air Service

A. Description

The Anaconda-Deer Lodge County Airport, Bowman Field, is located at 2010 Cable Road between Anaconda and Warm Springs. The airport is owned and operated by Anaconda – Deer Lodge County and governed by the Board of County Commissioners with an advisory Airport Board. The airport covers 290 acres and has two runways. There are 13 based aircraft at the airport and approximately 6,600 aircraft operations annually. Aviation activities include recreational flying, corporate aviation, medical shipments and patient transfer. Montana State Hospital in Warm Springs utilizes the airport on average 10 times per month. Other activities that occur occasionally are agricultural spraying, aerial inspections of properties, civilian flight training, prisoner transport, search and rescue operations, forest and rangeland firefighting operations, aerial photography and real estate tours. There is no landing fee at Bowman Field.

Table 3 : Airport Statistics

Feature	Description
Runway 16/34 Length	6,000 ft.
Runway 4/22 Length	4,500 ft.
Surface	Asphalt (both runways)
Lights	Beacon
Type	General Aviation
Fuel & Services	None

Source: Montana Department of Transportation – Aeronautics Division - ADLC Airport Manager

B. Improvements and Safety

The Montana Department of Transportation “Statewide Transportation Improvement Program” identifies the following improvements to the airport. Improvements are being funded through the Federal Airport Improvement Program which pays 90% of the costs.

- Year 2009 - Overlay Runway 16/34 & taxiway
- Year 2010 – Overlay Runway 4/22

The Development Permit System contains an “Airport Safety Overlay Zone” which regulates building height and land use within the vicinity of the airport.

C. Economic Impact

In 2009, Wilbur Smith Associates completed the, “Montana Economic Impact of Airports Study”. The study included estimated economic impacts for each airport in Montana. Economic impacts are measured through employment, on-airport business and governmental impacts, and visitor impacts (first round impacts). Additionally, these direct impacts create spin-off benefits that ripple through the local economy (second round impacts). The study estimated that first-round impacts amount to approximately \$141,800 and second round impacts equal approximately \$81,200. Combined, the total economic impacts in 2008 was \$229,200.

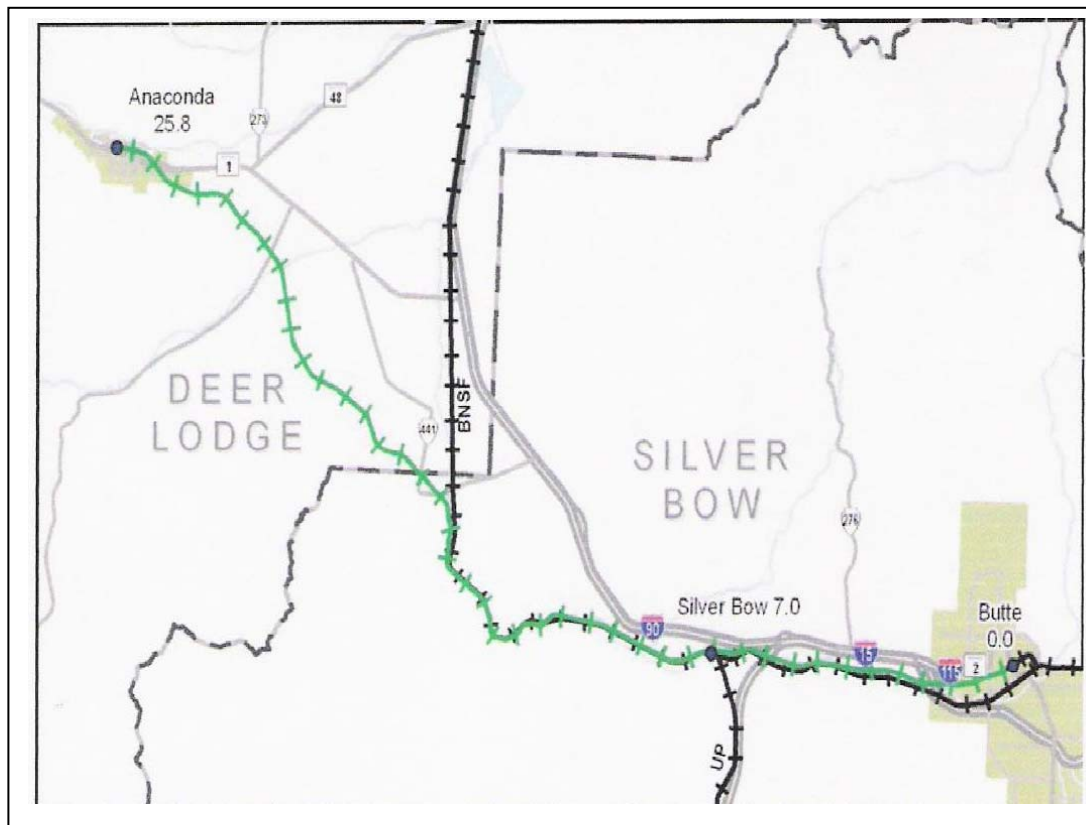
9. Rail

Access to rail transportation routes is often a key criterion in recruiting businesses for industrial developments. According to the Montana Department of Transportation, “2009 - Montana State Rail Plan”, rail transportation has been the fastest growing mode of freight shipment over the last decade and demand for rail services is expected to grow over the next 20 years. The “East Deer Lodge Reuse Guideline”, adopted by the County in 2008, notes that the existing rail service in the Mill Creek, East Yards, and Opportunity Triangle as critical infrastructure in redevelopment of the industrial areas. Following is a description of rail service in Anaconda - Deer Lodge County.

A. Butte, Anaconda & Pacific Railway, (BA&P)

Butte, Anaconda & Pacific Railway (BA&P), formerly referred to as the Rarus Railway, connects Butte and Anaconda and intersects with the Union Pacific Line at Silver Bow. The short-line railroad is currently owned by Patriot Rail Corp, a short-line and regional freight railroad holding company based in Boca Raton, Florida. BA&P consists of 25.3 miles of railroad, 8.6 miles of other main track, 30.1 miles of passing crossovers and turnouts, and 0.5 miles of yard switching tracks. The maximum track speed is 30 mph. BA&P is unsignalled.

Figure 4: Butte, Anaconda and Pacific Rail System

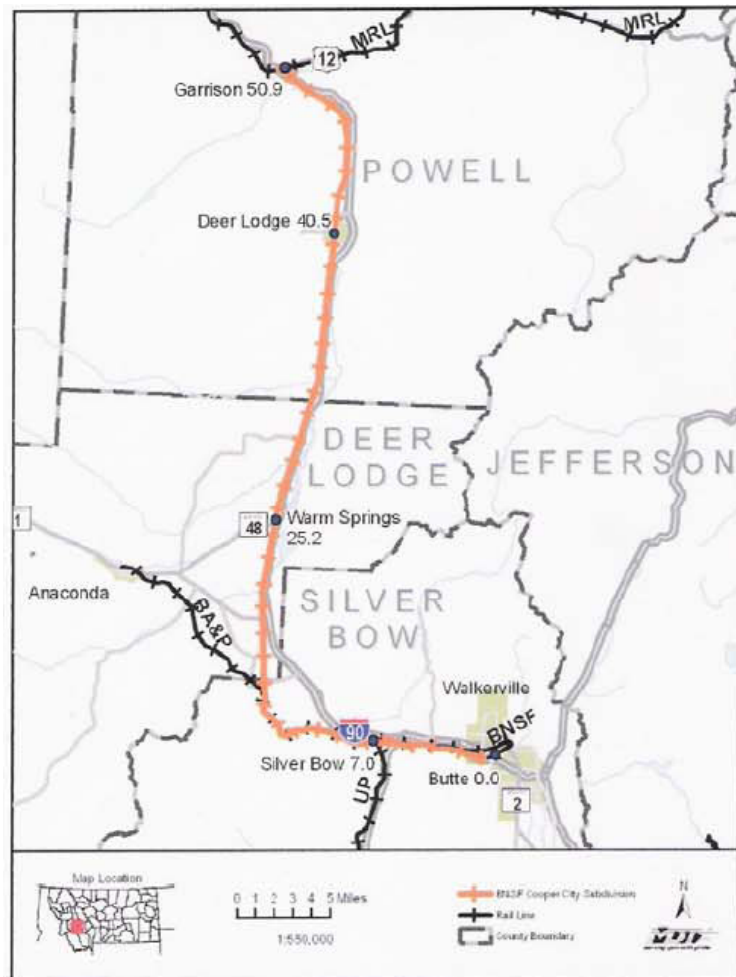


Source: Montana Department of Transportation, “2009 Montana State Rail Plan”

B. Burlington Northern – Santa Fe (BNSF)

The BNSF, Cooper City main line connects Butte with Garrison. Stations along the line include Silver Bow, Warm Springs, and Deer Lodge. Maximum speed on this single-track is 25 mph. The line does not directly connect to other BNSF segments, but serves operations bridging between Montana Rail Link in Garrison and Union Pacific at Silverbow. It is unknown what effect, if any, the recent purchase of BNSF by Berkshire Hathaway will have.

Figure 5 : BNSF – Copper City Line



Source: Montana Department of Transportation, "2009 Montana State Rail Plan"

C. Passenger Service

The Copper King Express, an excursion train that for many years had offered tours between Anaconda and Butte during the summer months, has recently ceased operations. Resumption of Amtrak passenger service in southern Montana is being considered and could provide passenger service more conveniently located for the county. Currently, the closest Amtrak passenger service is available in Whitefish or Shelby, each approximately 230 miles north of Anaconda.

10. Port of Montana

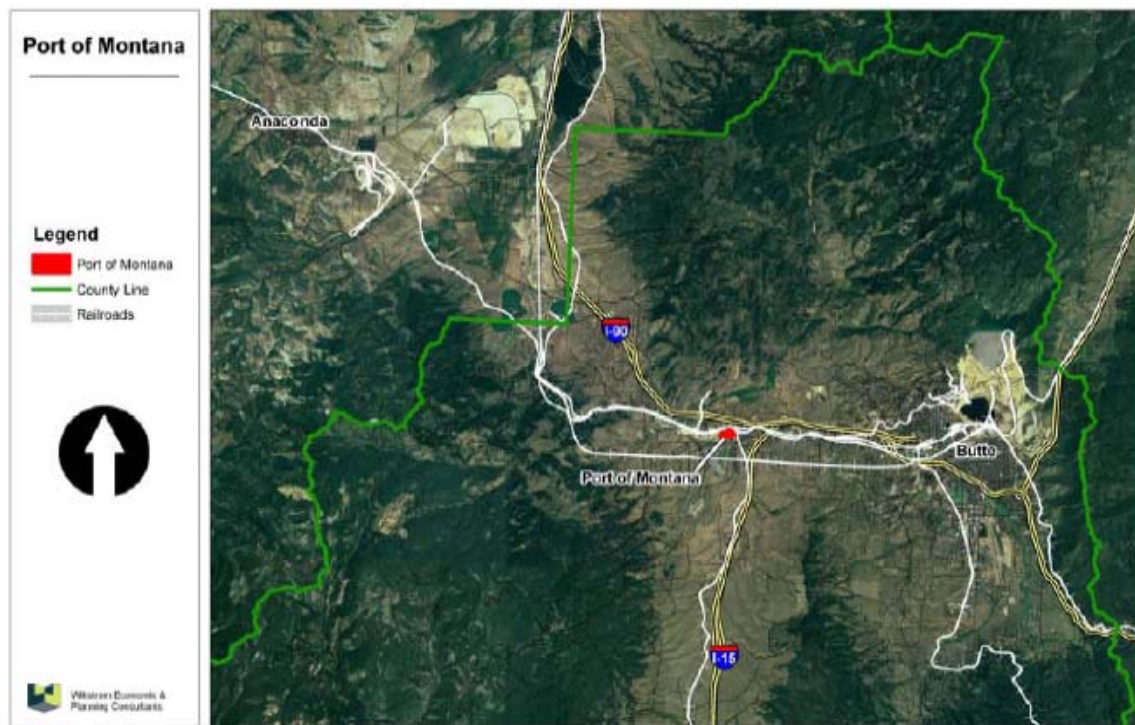
The Port of Montana is located at the intersection of two major interstates, I-90 and I-15, and is the only point in Montana where two transcontinental railroads interface, the Burlington Northern/Santa Fe (BNSF) and the Union Pacific (UP). The Port of Montana intermodal hub facility provides access to new markets at competitive rates.

The Port of Montana Port Authority (POMPA) specializes in warehousing, transloading and distribution of a wide variety of commodities that include forest products, minerals and ores, chemicals, packaged foods, and manufactured goods. The Port ships and receives products from both domestic and international points.

POMPA offers a wide variety of services including transportation planning, document preparation, inventory control, US Customs clearance, and a bonded warehouse. POMPA has equipment to handle most transloading jobs including a swath engine, forklifts, a front-end loader, piggypackers and conveyors. The Port also has over 175,000 square feet of covered storage.

Anaconda has a rail line connecting to the Port of Montana. Anaconda also has excellent highway access to the port via Highway 1 and I-90. Business has been steady over the past few years but the volume of product through the Port fluctuates seasonally. The Port represents a significant asset to ADLC. Butte has successfully attracted new employers to the area surrounding the Port. As property in Anaconda becomes available for development, the community will be able to participate in the opportunities presented as a result of the Port and Butte's current success.

Figure 6 : Port of Montana



PART 3: GOALS, POLICIES & ACTIONS

The purpose of these goals, policies, and actions is to provide for a modern and sustainable transportation system for the county, and to ensure that transportation considerations are part of the land use and economic development planning process.

Goal 1: Provide a modern, efficient transportation system to support the County's economic development efforts and to meet the needs of present and future residents.

Goal 2 : Integrate transportation considerations into the various land use and economic development planning processes.

Goal 3: Through integrated community planning, non-motorized system planning, and transportation system enhancements, provide the widest possible range of transportation choices for ADLC residents.

Policies:

1. The County shall support non-motorized transportation through community planning, capital improvement programming, and appropriate grant opportunities, such as CTEP.
2. Traffic impacts and demands on the transportation system shall be a consideration in all land use issues such as subdivisions and development permits.
3. The County shall encourage sustainability in all aspects of the transportation system in order to control future maintenance costs and to provide a greater choice of transportation modes.

Actions:

1. Through the development review and permitting process, ensure that new development adequately addresses impacts to the transportation system.
2. Maintain, and where possible, extend the urban grid. Where cul-de-sacs are used because of topography, ownership, or other factors, provide for a future right-of-way connection.
3. Always attempt to provide pedestrian and/or bicycle access between developments.
4. Systematically bring all urban street intersections into ADA compliance.
5. Where indicated on the new trail plan, secure trail easements through new developments.
6. Begin a dialogue with the Montana Department of Transportation regarding the use of the old West Valley railroad right-of-way for use as a sewer line and non-motorized transportation route.
7. Prioritize and carry out the transportation improvements recommended in the East Deer Lodge Reuse Plan as opportunities arise.
8. Maintain the integrity of the air approach zones at Bowman Field.
9. Develop a pavement management plan as a maintenance item, separate and apart from the CIP.
10. Evaluate the feasibility of a Safe Routes to School program.
11. Evaluate the need for "safe crossing sections" near schools, the hospital, and other concentrations of high pedestrian activity.
12. Where indicated on the trail plan, secure trail easements in new developments, where appropriate.